



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,383	02/06/2004	Kazuya Umeyama	118582	5750
25944 7590 02/17/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
QUIETT, CARRAMAH J				
ART UNIT		PAPER NUMBER		
2622				
MAIL DATE		DELIVERY MODE		
02/17/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/772,383

**Applicant(s)**

UMEYAMA, KAZUYA

**Examiner**

Carramah J. Quiett

**Art Unit**

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/08/2009 has been entered.

### ***Response to Amendment***

2. The amendment(s), filed on 01/08/2009, have been entered and made of record. Claims 1-24 are pending.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 1-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyatake et al. (US 6750903) in view of Shimizu (US 7064780) and Chen (US 2001/0010546 A1).

For **claim 1**, Miyatake discloses an electronic camera (fig. 1) having a multi-shooting mode in which data of a composite image is generated by arranging and compositing data of a

predetermined number of frame images generated by continuous shooting (col. 3, lines 44-65), comprising:

a first switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs start of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

a second switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs end of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

an image pickup (fig. 1) that performs the continuous shooting according to an operation to said first and second switches to generate data of a plurality of frame images in said multi-shooting mode (col. 3, line 66 – col. 4, line 43); and

a controller (fig. 1) that changes an extracting rate according to a number of images generated by said image pickup, and extracts the data of the predetermined number of frame images from the data of the plurality of frame images according to the changed extracting rate and as a result of the operation of said second switch (col. 4, lines 44-67), wherein

the controller arranges and composites the data of the predetermined number of frame images extracted by said controller to generate the data of the composite image as a result of the operation of said second switch (col. 7, lines 25-67). Please see figs. 1-4.

However, Miyatake does not expressly teach that the controller arranges the data of the predetermined number extracted by said controller in a matrix form having a row and column and according to a shooting order, and the controller records the composite image arranged in the matrix form on a recording medium.

In a similar field of endeavor, Shimizu discloses a controller (fig. 1) that changes an extracting rate according to a number of images generated by said image pickup, and extracts the

data of the predetermined number of frame images from the data of the plurality of frame images according to the changed extracting rate and as a result of the operation of said second switch, wherein the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order to generate the data of the composite image as a result of the operation of said second switch.

Please see figs. 1-2 and read col. 3, line 60 – col. 4, line 67. In light of the teaching of Shimizu, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 1 in order to make it easier and more efficient to record and reproduce a plurality of images (Shimizu, col. 1, lines 29-41).

Also, in a similar field of endeavor, Chen discloses an electronic camera (fig. 1) in which data of a composite image (fig.3, 59) is generated by arranging and compositing data of frame images, comprising a controller (19/26), wherein the controller records the composite image arranged in the matrix form on a recording medium (26). Please see fig. 3 and read pages 2-4, paragraphs [0022] and [0038]-[0040]. In light of the teaching of Chen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 1 in order to provide a controller that combines images based on a spatial relationship between the images (pg. 1, paragraph [0006]).

For **claim 2**, Miyatake, as modified by Shimizu and Chen, discloses the electronic camera according to Claim 1, wherein said controller performs the extraction at such intervals that

intervals at which frame images in extracted data have been shot become substantially uniform (col. 9, lines 13-28). Please see figs. 5-6.

For **claim 3**, Miyatake discloses an electronic camera (fig. 1) having a multi-shooting mode in which data of a composite image is generated by arranging and compositing data of a predetermined number of frame images generated by continuous shooting (col. 3, lines 44-65), comprising:

a first switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs start of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

a second switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs end of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44;

an image pickup (fig. 1) that performs the continuous shooting according to an operation to said first and second switches to generate data of a plurality of frame images in said multi-shooting mode (col. 3, line 66 – col. 4, line 43); and

a controller that calculates a difference between frame images in the data of the frame images generated by said image pickup, the difference representing an amount of variation in an object (col. 4, lines 44-61), wherein

the controller extracts data of the predetermined number of frame images from the data of the plurality of frame images at such intervals that the smaller the difference between the frame images, the longer the intervals (col. 4, lines 44-67),

the controller arranges and composites the data of the predetermined number of frame images extracted by said controller to generate the data of the composite image as a result of the operation of said second switch (col. 7, lines 25-67). Please see figs. 1-4.

However, Miyatake does not expressly teach that the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order, and the controller records the composite image arranged in the matrix form on a recording medium.

In a similar field of endeavor, Shimizu discloses wherein the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order to generate the data of the composite image as a result of the operation of said second switch. Please see figs. 1-2 and read col. 3, line 60 – col. 4, line 67. In light of the teaching of Shimizu, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 3 in order to make it easier and more efficient to record and reproduce a plurality of images (Shimizu, col. 1, lines 29-41).

Also, in a similar field of endeavor, Chen discloses an electronic camera (fig. 1) in which data of a composite image (fig.3, 59) is generated by arranging and compositing data of frame images, comprising a controller (19/26), wherein the controller records the composite image arranged in the matrix form on a recording medium (26). Please see fig. 3 and read pages 2-4, paragraphs [0022] and [0038]-[0040]. In light of the teaching of Chen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 3 in order to provide a controller that combines images based on a spatial relationship between the images (pg. 1, paragraph [0006]).

For **claim 4**, Miyatake, as modified by Shimizu and Chen, discloses the electronic camera according to Claim 3, wherein said controller extracts the data of the predetermined number of frame images in ascending order of the calculated differences (col. 4, lines 44-61).

For **claim 5**, Miyatake discloses an electronic camera (fig. 1) having a multi-shooting mode in which data of a composite image is generated by arranging and compositing data of a predetermined number of frame images generated by continuous shooting (col. 3, lines 44-65), comprising:

a first switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs start of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

a second switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs end of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

an image pickup (fig. 1) that performs the continuous shooting according to an operation to said first and second switches to generate data of a plurality of frame images in said multi-shooting mode (col. 3, line 66 – col. 4, line 43); and

a controller (fig. 1) that selects the data of at least the predetermined number of frame images from the data of the plurality of frame images according to a number of frame images generated by said image pickup, and calculates a difference between frame images in the selected data, the difference representing an amount of variation in an object (col. 4, lines 44-61), wherein

the controller extracts the data of the predetermined number of frame images from the data of the plurality of frame images at such intervals that the smaller the difference between the frame images, the longer the intervals (col. 4, lines 44-61),



the controller arranges and composites the data of the predetermined number of frame images extracted by said controller to generate the data of the composite image, as a result of the operation of said second switch (col. 7, lines 25-67). Please see figs. 1-4.

However, Miyatake does not expressly teach that the controller arranges and composites the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order, and the controller records the composite image arranged in the matrix form on a recording medium.

In a similar field of endeavor, Shimizu discloses a controller (fig. 1) that changes an extracting rate according to a number of images generated by said image pickup, and extracts the data of the predetermined number of frame images from the data of the plurality of frame images according to the changed extracting rate and as a result of the operation of said second switch (col. 4, lines 44-61), wherein the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order to generate the data of the composite image as a result of the operation of said second switch. Please see figs. 1-2 and read col. 3, line 60 – col. 4, line 67. In light of the teaching of Shimizu, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 5 in order to make it easier and more efficient to record and reproduce a plurality of images (Shimizu, col. 1, lines 29-41).

Also, in a similar field of endeavor, Chen discloses an electronic camera (fig. 1) in which data of a composite image (fig.3, 59) is generated by arranging and compositing data of frame images, comprising a controller (19/26), wherein the controller records the composite image

arranged in the matrix form on a recording medium (26). Please see fig. 3 and read pages 2-4, paragraphs [0022] and [0038]-[0040]. In light of the teaching of Chen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 1 in order to provide a controller that combines images based on a spatial relationship between the images (pg. 1, paragraph [0006]).

For **claim 6**, Miyatake discloses an electronic camera (fig. 1) having a multi-shooting mode in which data of a composite image is generated by extracting data of a predetermined number of frame images from data of a plurality of frame images generated by continuous shooting, and by compositing the extracted data of the frame images (col. 4, lines 44-61), comprising:

- a first switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs start of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

- a second switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs end of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

- an image pickup (fig. 1) that performs the continuous shooting according to an operation to said first and second switches to generate data of a plurality of frame images in said multi-shooting mode (col. 3, line 66 – col. 4, line 43); and

- a controller that extracts the data of the predetermined number of frame images from the data of the plurality of frame images in said multi-shooting mode at such intervals that an Nth frame image data to be extracted is generated by shooting at a time of an Xth power of (N-1)

where X is more than zero when a first frame image data to be extracted is assumed to be generated by shooting at a time zero, (col. 7, lines 25-67). Please see figs. 3-4.

wherein the controller arranges and composites data of the predetermined number of frame images extracted by said controller to generate the data of the composite image (col. 4, lines 44-67).

However, Miyatake does not expressly teach that the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order, and the controller records the composite image arranged in the matrix form on a recording medium.

In a similar field of endeavor, Shimizu discloses wherein the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order to generate the data of the composite image as a result of the operation of said second switch. Please see figs. 1-2 and read col. 3, line 60 – col. 4, line 67. In light of the teaching of Shimizu, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 6 in order to make it easier and more efficient to record and reproduce a plurality of images (Shimizu, col. 1, lines 29-41).

For **claim 7**, Miyatake discloses an electronic camera (fig. 1) having a multi-shooting mode in which data of a composite image is generated by arranging and compositing data of a predetermined number of frame images generated by continuous shooting (col. 3, lines 44-65), comprising:

a first switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs start of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

a second switch (fig. 1, ref. 112/fig. 2, ref. 202) that instructs end of the continuous shooting in said multi-shooting mode (col. 5, lines 21-28; col. 6, lines 28-44);

an image pickup (fig. 1) that performs the continuous shooting according to an operation to said first and second switches to generate data of a plurality of frame images in said multi-shooting mode (col. 3, line 66 – col. 4, line 43); and

a controller that extracts data of the predetermined number of frame images from the data of a plurality of frame images in said multi-shooting mode in such a manner that the data extracted includes data of frame images shot at the start and end of the continuous shooting (col. 4, lines 44-67), wherein

the controller arranges and composites the data of the predetermined number of frame images extracted by said controller to generate the data of the composite image as a result of the operation of said second switch (col. 7, lines 25-67). Please see figs. 1-4.

However, Miyatake does not expressly teach that the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order, and the controller records the composite image arranged in the matrix form on a recording medium.

In a similar field of endeavor, Shimizu discloses wherein the controller arranges the data of the predetermined number of frame images extracted by said controller in a matrix form having a row and column and according to a shooting order to generate the data of the composite image as a result of the operation of said second switch. Please see figs. 1-2 and read col. 3, line

60 – col. 4, line 67. In light of the teaching of Shimizu, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 1 in order to make it easier and more efficient to record and reproduce a plurality of images (Shimizu, col. 1, lines 29-41).

Also, in a similar field of endeavor, Chen discloses an electronic camera (fig. 1) in which data of a composite image (fig.3, 59) is generated by arranging and compositing data of frame images, comprising a controller (19/26), wherein the controller records the composite image arranged in the matrix form on a recording medium (26). Please see fig. 3 and read pages 2-4, paragraphs [0022] and [0038]-[0040]. In light of the teaching of Chen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the controller of Miyatake with the controller as recited in claim 7 in order to provide a controller that combines images based on a spatial relationship between the images (pg. 1, paragraph [0006]).

For **claim 8**, Miyatake, as modified by Shimizu and Chen, discloses the electronic camera according to Claim 7, wherein the controller changes an extracting rate according to the predetermined number and the number of frame images generated by said image pickup and extracts the data of the predetermined number of frame images from the generated data of the frame images according to the changed extracting rate (Miyatake, col. 4, lines 44-61; Shimizu, col. 3, line 60 – col. 4, line 67).

For **claim 9**, Miyatake, as modified by Shimizu and Chen, disclose the electronic camera according to Claim 7, wherein the controller calculates a difference between frame images of the generated data of the frame images, the difference representing an amount of variation in an

object, and wherein said controller extracts the data of the predetermined number of frame images from the data of the plurality of frame images at such intervals that the smaller the difference between the frame images, the longer the intervals (col. 7, lines 25-67). Please see figs. 1-4.

**Claims 10, 11, 12, 13, and 14** are method claims corresponding to apparatus claims 1, 3, 5, 6, and 7, respectively. Therefore, claims 10, 11, 12, 13, and 14 are analyzed and rejected as previously discussed with respect to claims 1, 3, 5, 6, and 7, respectively.

For **claim 15**, Miyatake, as modified by Shimizu and Chen, disclose the electronic camera according to Claim 1, wherein said first and second switches constitute a single mechanism (col. 6, lines 28-44).

For **claim 16**, Miyatake, as modified by Shimizu and Chen, disclose the electronic camera according to Claim 1, wherein said first and second switches constitute different mechanisms (col. 5, lines 21-28; col. 6, lines 28-44).

**Claims 17 and 18** are apparatus claims corresponding to apparatus claims 15 and 16, respectively. Therefore, claims 17 and 18 are analyzed and rejected as previously discussed with respect to claims 15 and 16, respectively.

**Claims 19 and 20** are apparatus claims corresponding to apparatus claims 15 and 16, respectively. Therefore, claims 19 and 20 are analyzed and rejected as previously discussed with respect to claims 15 and 16, respectively.

**Claims 21 and 22** are apparatus claims corresponding to apparatus claims 15 and 16, respectively. Therefore, claims 21 and 22 are analyzed and rejected as previously discussed with respect to claims 15 and 16, respectively.

**Claims 23 and 24** are apparatus claims corresponding to apparatus claims 15 and 16, respectively. Therefore, claims 23 and 24 are analyzed and rejected as previously discussed with respect to claims 15 and 16, respectively.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571)272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David L. Ometz/  
Supervisory Patent Examiner, Art Unit  
2622

/C. J. Q./  
Examiner, Art Unit 2622  
February 9, 2009